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AUTHOR Ross, Susan M.; Straus, Murray A.
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ABSTRACT

The Social Integration Scale (SIS) is intended to facilitate empirical research on the applicability of control theory to many types of adult crime, including "street crime," white collar crime, and physical assaults on spouses. There are five subscales: (1) belief (belief in law and social control); (2) commitment (psychological investment in conventional behavior); (3) involvement (behavioral investment in conventional behavior); (4) network availability (interaction with noncriminal persons and organizations); and (5) criminal peers (association with persons engaged in criminal behavior). Preliminary psychometric data based on a college student sample (340 to 359 students depending on the subscale) show a meaningful factor structure, and acceptable levels of reliability and construct validity. In addition to the full 26-item scale, there are 10-item and 5-item short forms. The alpha reliability coefficients for the short versions are low, but the validity coefficients are similar to those of the full scale. The scale is attached. (Contains 6 tables and 33 references.) (Author/SLD)

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THE SOCIAL INTEGRATION SCALE

Susan M. Ross
Murray A. Straus

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THE SOCIAL INTEGRATION SCALE *1

Susan M. Ross and Murray A. Straus
Family Research Laboratory, University of New Hampshire
Durham, NH 03824 (603) 862-1888

Abstract

The Social Integration Scale (SIS) is intended to facilitate empirical research on the applicability of control theory to many types of adult crime, including "street crime, white collar crime, and physical assaults on spouses. There are five subscales: Belief (belief in law and social control), Commitment (psychological investment in conventional behavior), Involvement (behavioral investment in conventional behavior), Network Availability (interaction with non-criminal persons and organizations), and Criminal Peers (association with persons engaged in criminal behavior). Preliminary psychometric data based on a college student sample show a meaningful factor structure, acceptable levels of reliability and construct validity. In addition to the full 26 item scale, there is a 10 item and a 5 item short form. The alpha reliability coefficients for the short forms are low, but the validity coefficients are similar to those of the full scale.

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Social integration and social isolation (Durkheim,1897/1951), social control and social bond (Black, 1976; Gottfredson and Hirschi, 1990; Hirschi, 1969), and social capital (Coleman, 1988) are widely used concepts in sociology and criminology. Durkheim (1897/1951) was among the first sociologists to apply the theoretical concept of social isolation to deviant or criminal behavior. In discussing egoistic suicide, Durkheim (1897/1951) claimed that the more integrated into the religious, family and political institutions of society, the less chance of suicide. Additionally, Junger-Tas (1992) and Krohn and Massey (1980) have found that juvenile delinquency activity including property crimes, drug use, and violent crimes are increased with a lack of social integration. Social integration and social isolation has also been a focus in research on family violence, both child abuse (Garbarino, 1977; Garbarino and Gilliam, 1980) and spouse abuse (Lackey and Williams, 1995; Williams and Hawkins 1989, 1992).

Despite this theoretical consensus and considerable empirical research, it is difficult to compare the findings from studies of the link between social integration and criminal behavior because each study has used a different measure of social integration. For example, none of the following 20 studies used the same measure of social integration: Baba and Austin, 1991; Coleman, 1988; Friedman and Rosenbaum, 1988; Hindelang, 1973;

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Hirschi, 1967; Hunter and Baumer, 1982; Junger-Tas, 1992; Krohn and Massey, 1980; Lackey and Williams, 1995; Leeuw, 1991; Meisenhelder, 1977; Michaels and Miethe, 1989; Palermo, Gumz, and Liska, 1992; Scott, 1976; Shoemaker, 1994; Torstensson, 1990; Wiatrowski and Anderson, 1987; Wiatrowski, Griswold and Roberts, 1981; and Williams and Hawkins, 1989, 1992.

Perhaps one reason each study used a different measure may be the absence of a compelling reason to use one of the previously developed measures. These measures are typically ad hoc scales put together for a specific study, and no data is available on their validity and reliability. Moreover, since many were developed for research on juvenile crime, they are not suitable for research on crime by adults. The lack of a standard and valid measure of social integration and many other key concepts in criminology is unfortunate because their absence increases the risk of Type II error (Blalock, 1979; Straus and Wauchope, 1992). Standard measures also facilitate integrating findings from different studies. We think that criminological research can be aided by making available a measure of social integration that is theoretically grounded and valid in the sense of a demonstrated correlation with criminal behavior. In addition, the measure should be applicable to both adolescents and adults, and should be brief enough to be used in studies that have only a limited time available to measure each variable. The purpose of this paper is to describe the development of a measure that is intended to meet these criteria -- The Social Integration Scale or SIS.

CONCEPTUAL FRAMEWORK

The primary conceptual basis of the SIS is Hirschi's theory of social control (1969). Hirschi argued that a weak bond with society is a primary cause of delinquent behavior. The theory holds that the more links individuals have with society, the less likely they are to engage in deviant or criminal acts. There are four basic elements of this theory of social control: belief (belief in law and social control); attachment (how much a person cares about what others think of him/her); commitment (psychological investment in conventional behavior); and involvement (behavioral investment in conventional behavior). In 1990, Gottfredson and Hirschi expanded the theory of social control to include the element of self control. Our objective in designing the SIS was to include subscales for each of these five concepts.

In addition to Hirschi and Gottfredson's elements of social and self control, we felt that it was important to also measure the availability of social networks such as friends and family members. We therefore undertook to include a subscale to measure network availability. Finally, it is possible to have a high level of social integration with a criminal peer group. Therefore, we sought to include a subscale to measure integration with criminal peers.

METHODS

Initial Item Pool

The chances of creating a valid and reliable instrument are increased by starting with a large preliminary "pool" of items. The best of these item can then be selected on the basis of pre-testing and statistical analysis. In the case of the SIS we started with the target of creating an initial pool of ten or more items for each of the seven subscales. We

developed these items on the basis of our theoretical judgement, research experience, and a review of the items included in the 20 instruments cited above. A total of 76 items were written.

These 76 items were reviewed for clarity and duplication and we selected 55 for the scale development version of the SIS. There were 7 attachment items; 8 commitment items; 6 involvement items; 10 belief items; 10 self-control items; 7 network availability items; and 7 criminal peer items. These 55 items are listed in the Appendix in the random order administered to the sample.

Sample

The preliminary 55 item version of the SIS was administered to students in undergraduate sociology courses in the spring of 1995. Altogether 377 questionnaires were distributed. Subjects were told that they could omit any question they did not wish to answer, and that they could omit the entire questionnaire by putting the blank questionnaire in the box at the front of the room when other students started handing in their questionnaires. Fifteen students chose not to take the questionnaire and three questionnaires were unusable due to many out-of-range answers such as marking a 5 on the answer form even though the response categories on the questionnaire were 1, 2, 3, or 4. Therefore, the final sample size was 359. Because some subjects omitted an occasional question, the effective sample size varies from 340 to 359, depending on which questions and scales are included in the analysis.

Sample Demographics. Approximately two-thirds of the sample (65.7%) were female. Although 95% were between the ages of 18 and 23, the age range as high as 47 (mean = 20.44, std. dev. = 2.48). Approximately one-quarter were from each of the four class levels (freshman, sophomore, junior, and senior). Table 1 shows the frequency distributions for the respondents' race, paternal education, maternal education, family income, and parents' current marital status.

(insert Table 1 about here)

Instructions to Subjects

The test booklet and the oral introduction explained that the purpose of the study was a pretest "to find out whether we have good questions before we actually conduct any experiments using these questions." The Social Integration Scale was introduced as "People spend their time doing many different activities with a variety of people...describe your usual social and work activities." The subjects were also told that the questions "describe a number of different behaviors and characteristics. Many of these...are about social relationships you are now in or have been in the past, although many are about you as an individual." The questions were in a test booklet and the subjects responded by darkening ovals on a machine scored answer sheet. They were also asked to write comments about the items and to suggest alternative wording.

Neglect Scale and Revised Conflict Tactics Scales

The test booklet also included two other instruments. The first of these was a preliminary version of a Neglect Scale (Straus, Kinard, and Meyer Williams, 1995). The Neglect Scale is a retrospective measure of

parental behavior during the respondent's childhood. A high score indicates parental neglect.

The second instrument was a preliminary version of the revised Conflict Tactics Scales (Straus, Hamby, Boney-McCoy, & Sugarman, 1995). The CTS is a widely used instrument which includes scales to measure psychological aggression and physical assaults against a partner in a dating, cohabiting, or married relationship (Straus, 1979, 1990). It asks respondents to report how they handled conflict with their partner during the past year. Respondents were asked about the current or most recent relationship lasting at least one month. Respondents who were not in a relationship for at least one month during the 12 months prior to the survey were not used in the analysis involving the CTS2.

Psychometric Analyses

Before beginning the statistical analysis, the test booklets were scanned to read the comments respondents were asked to make about the items they felt needed to be changed. No problems that indicated a need to drop an item were discovered.

Scoring. The response categories for the social integration items are: 1 = strongly agree, 2 = agree, 3 = disagree, and 4 = strongly disagree. The scoring of "positive" items such as "I have goals in life that I try to reach," were reversed so that a high score would indicate agreement rather than disagreement. Therefore, the higher the overall score of the SIS, the greater the social integration, and likewise the lower the overall score of the SIS, the less socially integrated and lesser involvement with criminal peers. The item pool was designed to have approximately one half positive and one half negative items to avoid response bias. The full set of explanations and instructions is given with the test in the Appendix.

Factor analyses and Reliability. The 55 SIS items were analyzed using the SAS procedure for principal factors analysis with varimax rotation. This analysis was repeated using promax rotation. The two analyses were so similar that we decided to work exclusively with the varimax rotation. After examining the scree plot of eigenvalues and consulting the theoretical conceptualization, a five factor solution was chosen. Reliability was measured using the using the alpha reliability program in SPSS/PC+.

Construct validity analyses. The validity of an instrument is based on a complex judgment that requires extensive data and experience with the test. For this paper, limited but nonetheless important data was available. This is data that permits an evaluation of the construct validity of the SIS. Construct validity is judged by investigating the correlation of a test with variables with which, if the test is valid, should be related to what the test purports to measure because previous research or theoretical analysis indicates the two constructs are linked (Cronbach, 1970).

The available data includes several variables which meet this criterion, i.e. they are variables which we believed should be associated with social integration. They were selected by reviewing all the data available for this sample to identify variables for which it seemed plausible to expect a correlation social integration. The most important of these are the data on physical assault and psychological aggression against the respondents partner from the Conflict Tactics and Neglect

Scales (Straus, 1990, 1994), and a newly developed measure of the extent to which the respondent experienced neglect by his or her parents when a child. We also included in the analysis five demographic variables. It was hypothesized that the higher the score on the SIS, the lower the score on the Neglect Scale and the less the psychological abuse and physical assault on a partner.

RESULTS

Factor Analyses and Reliability

The factor analysis with varimax rotation of the 55 SIS items yielded five factors with eigenvalues greater than one. These five factors explain 73.3% of the total variance in the 55-items. Table 2 gives the factor loadings of the items on each scale. Only loadings of .30 or higher are reported in Table 2. Inspection of the items with high loadings on each factor shows that they correspond to five of the seven elements of the social integration theory. These are Belief, Criminal Peers, Network Availability, Commitment, and Involvement. There were no factors corresponding to Attachment and Self-Control.

(insert Table 2 about here)

Of the 55 variables in the factor analysis, 43 had factor loadings greater than .30. If this were the sole criterion for selecting items, it would result in a 43 item scale. We believe that is too long a scale to be practical for most research. We therefore used a more stringent standard and selected items with loadings of .45 for factors I and II and .40 for factors III, IV and V since the factor loadings were slightly lower than the first two factors. The item "I spend a lot of time doing volunteer work" loaded on both the Commitment factor and the Involvement factor. Because the highest loading was on the Involvement factor, and because it was conceptualized as an involvement item, we placed it in the Involvement factor.

(insert Table 3 about here)

The process described above resulted in a 26 item scale. It has an alpha reliability coefficient of .83. Table 3 lists the items in each of the five subscale and their factor loadings, and also the alpha coefficients of reliability for each subscale.

SHORT FORMS OF THE SIS

There are some situations in which it is not possible to devote 26 questions to measuring social integration. Researchers faced with that limitation typically select a few items from the longer scale and hope that the resulting measure will be satisfactory. A better alternative is for authors of the test to make the selection based on psychometric criteria and to test the reliability and validity of the resulting short form. We therefore developed two short forms of the SIS, a five item scale and a ten item scale. The five item scale was constructed by selecting the item with the highest factor loading on each of the five factors. The ten item short form was constructed by selecting the two items with the highest factor loadings on each factor. As can be seen from Table 4, the alpha coefficients of reliability are much lower than the reliability for the overall 26 item scale. However, the findings to be presented below show that, despite their low reliability, the short form scales are highly

correlated with the 26 item scale, and they seem to have almost the same level of construct validity as the full 26 item scale.

(insert Table 4 about here)

Descriptive Statistics for the SIS and Subscales

(insert Table 5 about here)

Table 5 gives the descriptive statistics and intercorrelations of the full length SIS, the two short forms, and the five subscales. The first two correlations in the column headed SIS26 shows that the two short forms have very high correlations with the full 26 item scale (.90 and .85).

The right side of Table 5 gives the intercorrelations of the five subscales. Although many of these correlations are significant, only the correlation between the Belief and the Criminal Peer scales is high enough to raise a concern about multicolinearity problems if all five are used in a multivariate analyses.

Construct Validity Analyses

The data available for this sample included a few variables which can be used to examine the construct validity of the SIS. These are variables which theoretical analyses or previous empirical research suggest should be associated with social integration. The logic behind the idea of construct validity is that if X is known to be related to Y, an instrument purporting to measure X should be correlated with Y. It is correlated, it contributes to the network of evidence that is needed to support the validity of the instrument (Cronbach, 1970).

The correlations of the SIS with variables that should be related to social integration are given in Table 6. The most important of these correlations are between the SIS scales and Conflict Tactics Scales measures of Psychological Aggression and Physical Assaults, and between the SIS and the Neglect Scale.

(insert Table 6 about here)

Physical and psychological assaults on dating, cohabiting, or marital partners. Social isolation has been hypothesized as a contributing factor to assaults on a partner in a married, cohabiting, or dating relationship (Straus, Gelles, & Steinmetz, 1980; Williams and Hawkins, 1990 and 1992). Numerous studies have found extremely high rates of physical assault on partners in college student samples (see the review in Sugarman and Hotaling, 1989). The rate for the present sample (40.7%) is consistent with those studies.

The negative correlations in the first two rows of Table 6 show that the more socially integrated an individual, the less likely they are to physically or psychologically abuse their dating, cohabiting, or marital partner. This can be taken as evidence that the SIS is valid in the sense that the theoretical and empirically based hypothesis is supported using this instrument. An interesting aspect of the correlations in Table 6 is that the construct validity coefficients are particularly strong for male respondents (part B of Table 6) than for female respondents (part c of Table 6). These gender differences may reflect differences in the etiology of partner violence, and a paper is planned which will address that

question.

Neglect by Parents. Straus, Kinard, and Meyer Williams (1995) hypothesized that neglect of children by their parents leads to low social attachment or integration. The data presented in row 3 of Table 6 are consistent with this hypothesis. The correlations show that the higher parental neglect score the lower the social integration.

Discriminant Validity. As noted in the methods section, the validity of an instrument cannot be established by a single correlation; it is a complex judgement based on a variety of evidence. One type of evidence is what Campble and Fisk (1959) call discriminant validity. If a measure is correlated with everything, it lacks discriminant validity. Presumably an artifact such as a response set accounts for the correlations. In the present case, a "social desirability response set" or "faking good" could produce the findings in Table 6. That, however, is made less plausible because only the Belief and Criminal Peer subscales are related to psychological and physical assaults on a partner. The Commitment and Involvement subscales are not related.

SES Variables. Table 6 shows no significant correlations between the overall SIS and respondents' race, parents' education, family income or parental marital status. The Belief subscale is weakly correlated with family income and parental marital status. It appears from these data that social integration is not a function of socioeconomic status. However, there are very few respondents in this sample from impoverished or racial minority families.

SUMMARY AND CONCLUSIONS

This paper described the development of a standardized scale to measure social integration, including five subscales: Belief, Network Availability, Commitment, Involvement, and Criminal Peers. The SIS seems to have face validity since all items are a form of social integration and are similar to other items used by previous researchers. Preliminary psychometric data indicate a relatively high level of reliability for the overall scale and for each of the five subscales. There is also evidence of construct validity.

Although the psychometric findings are very promising, they are based on a sample of university students who were almost exclusively white and middle class. Further testing of the SIS needs to be conducted on general population samples. In addition, research is need to measure test-retest reliability. The most important research needed, however, is for studies which examine the relation of the SIS to traditionally recognized crimes such as stranger assault and rape, robbery, burglary, white collar crime, and of course, juvenile crime. Studies of this type would both be examples of the intended uses of the SIS, and also contributions to evaluating the construct validity of the SIS.

The potential contributions are illustrated by the findings reported in this paper. They provide support for one theory of the etiology of low social integration -- parental neglect during the child's formative years. This theory has important practical implications for crime prevention. The findings on psychological and physical assaults of a partner also have both theoretical and practical implications. Despite the theoretical consensus that low social integration is a risk factor for family violence, the empirical evidence is scarce and questionable. Hence, the additional evidence provided by use of SIS makes an important contribution.

Finally, our hope is that, if other researchers come to use the SIS, it will eventually bring an end to the situation described in the introduction -- the existence of numerous studies whose findings are difficult to compare because each used a different method of measuring social integration. Experience with another instrument (the Conflict Tactics Scales or CTS) developed by one of the authors shows that this is not a remote possibility. The CTS has been the basis for more than a hundred studies in more than 20 countries. In 1994, ten scientific papers per month were published based on data obtained with the CTS.

Finally, use of the SIS would also make it possible to examine the separate effects of each of the different aspects of social integration measured by the five subscales. This could lead to more theoretically refined analyses. It makes it possible to investigate the extent to which different types of crime (such as stranger violence, domestic violence, property crime, domestic violence, and juvenile and adult crime) are similarly or differently linked to each aspect of social integration.

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SOCIAL AND WORK ACTIVITIES

People spend their time doing a many different activities with a variety of people. Please decide how much these statements are like you and circle one of the answer numbers for each question (or darken the matching oval on your answer sheet).

1 = strongly agree it is like me
2 = agree it is like me
3 = disagree it is like me
4 = strongly disagree it is like me

1. I act in rebellious ways.
2. Most criminals shouldn't be blamed for the things they have done.
3. I care about what my house/apartment looks like.
4. It's hard for me to say `no' to things I shouldn't do.
5. I always appreciate hearing about a good con game.
6. I share my thoughts with a friend.
7. I spend a lot of time with my neighbors.
8. I attend meetings of a club or organization once a month or more.
9. When I want something, I want it right away.
10. When I work, the only thing I like about it is the paycheck.
11. I give up easily on difficult projects.
12. I spend a lot of time doing volunteer work.
13. I often do things that I regret later.
14. To get ahead, I have done some things which are not right.
15. It's OK to lie to keep yourself out of trouble.
16. Family or friends know where I am when I am not at home.
17. I give time or money to charitable organizations or my community.
18. I consider myself something of a thrill-seeker.
19. My friends would be considered delinquents if they were kids.
20. Foolish people deserve to be taken advantage of.
21. No one knows when I have done something good.
22. It's all right to break the law as long as you don't get caught.
23. I spend money as soon as I get it.
24. I can control my temper.
25. I put my family needs before my own.
26. I find I have a lot of time on my hands.
27. I enjoy harming or destroying objects.
28. I rarely have anything to do with church activities.
29. I have gotten in trouble because I acted without thinking.
30. I hang out with friends who don't mind breaking a few rules.
31. I work at my job 40 or more hours a week.
32. I have friends who would help me out if I had a problem.
33. I pick friends who have good reputations.
34. I live for today and let tomorrow take care of itself.
35. I have goals in life that I try to reach.
36. I have friends that have committed crimes.
37. When I work, I care what my coworkers and boss think about my work.
38. I loose touch with people I have known.
39. I spend time with friends who have been in trouble with the law.
40. I have friends who get into physical fights.
41. I have nothing to lose if I got caught breaking the law.
42. I attend a church, synagogue, or mosque once a month or more.
43. I get together with friends or relatives once a week or more.
44. I spend a lot of time with friends at bars.
45. I do what I want regardless of what other people think of me.
46. I have a lot of respect for the police.
47. I hate feeling bored.
48. I try or tried to get as much education as possible.
49. I spend a lot of time with my family.
50. I tend not to vote during elections.
51. I think most people would lie to make themselves look better.
52. It's hard for me to really care about what someone else wants.
53. I have family members who would help me out if I had a problem.
54. I share my thoughts with a family member.
55. I get upset when people think I have done something wrong.

Table 1. Sample Description

Variable	Percent
Racial or Ethnic Identity (N=358)	
Asian American	1.7
African American	.8
White	95.5
Native American	.3
Hispanic	.8
Other	.8
Paternal Education Level (N=358)	
Less than High School	2.5
High School Graduate	17.3
Some College	14.8
Associate Degree	11.7
Bachelor Degree	25.4
Some Graduate School	3.9
Graduate Degree	24.3
Maternal Education Level (N=358)	
Less Than High School	3.6
High School Graduate	26.0
Some College	16.5
Associate Degree	15.9
Bachelor Degree	21.8
Some Graduate School	5.9
Graduate Degree	10.3
Family Annual Income (N=351)	
Under $9,999	.9
$10K - $19,999	3.1
$20K - $29,999	4.8
$30K - $39,999	13.7
$40K - $49,999	16.2
$50K - $59,999	19.1
$60K - $69,999	9.7
$70K - $79,999	10.5
$80K or More	21.9
Parents' Current Marital Status (N=357)	
Married	72.3
Separated	2.8
Divorced	21.3
Never Married	.3

Table 2. Five Factor Solution of All 55 Items (Factor Loading Greater than .30 Shown)

Item Number	Item (in abbreviated form)	Theoretical Conceptualization	Factor 1	2	3	4	5
1	I act in rebellious ways.	Commitment	.36	.	.	.	.
2	Most criminals shouldn't be blamed.	Belief	.	.	.	.	.
3R	Care about what my house looks like.	Attachment	.	.	.	.	.
4	Hard to say 'no' to things I shouldn't do.	Self Control	.	.	.	.	.
5	Appreciate hearing about a good con game.	Belief	.46	.	.	.	.
6R	Share my thoughts with a friend.	Net Avail	.	.	.52	.	.
7R	Spend a lot of time with my neighbors.	Involvement	.	.	.	.	.
8R	Attend meetings of a club 1/month.	Net Avail	.	.	.	.	.30
9	I want things right away.	Self Control	.40	.	.	.	.
10	Only thing I like about work is the paycheck.	Commitment	.	.	.	.37	.
11	Give up easily on difficult projects.	Self Control	.	.	.	.52	.
12R	Spend time doing volunteer work.	Involvement	.	.	.	.31	.52
13	Often do things that I regret later.	Self Control	.	.	.	.	.
14	Done things which aren't right.	Belief	.57	.	.	.	.
15	OK to lie to keep out of trouble.	Belief	.51	.	.	.	.
16R	Family/friends know where I am.	Attachment	.	.36	.30	.	.
17R	Give time/money to charity/community.	Commitment	.	.	.	.	.61
18	Consider myself a thrill-seeker.	Self Control	.36	.34	.	.	.
19	Friends would be considered delinquents.	Crimin Peers	.54	.39	.	.	.
20	Foolish people deserve to be taken advantage of.	Belief	.56	.	.	.	.
21	No one knows when I have done something good.	Attachment	.	.	.	.	.
22	OK to break the law if don't get caught.	Belief	.57	.	.	.	.
23	Spend money as soon as I get it.	Self Control	.	.	.	.	.
24R	I can control my temper.	Self Control	.	.	.	.	.
25R	I put my family needs before my own.	Commitment	.	.	.36	.	.
26	I find I have a lot of time on my hands.	Involvement	.	.	.	.	.
27	I enjoy harming or destroying objects.	Belief	.46	.	.30	.	.
28	I rarely have anything to do with church.	Involvement	.	.	.	.	.64
29	Got in trouble because I acted without thinking.	Self Control	.	.48	.	.	.
30	Hang out with friends who break a few rules.	Crimin Peers	.41	.54	.	.	.
31R	I work at my job 40 or more hours a week.	Involvement	.	.	-.35	.	.

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Table 2. continued

32R	Friends would help me out if I had a problem.	Net Avail	.	.	.48	.	.
33R	I pick friends who have good reputations.	Crimin Peers	.	.39	.	.	.
34	I live for today.	Self Control	.40	.	.	.	.
35R	Have goals in life that I try to reach.	Commitment	.	.	.	.60	.
36	Friends that have committed crimes.	Crimin Peers	.	.71	.	.	.
37R	Care what my coworkers/boss think.	Attachment	.	.	.	.45	.
38	I loose touch with people.	Attachment	.	.	.	.	.
39	Friends have been in trouble with the law.	Crimin Peers	.	.72	.	.	.
40	Friends get into physical fights.	Crimin Peers	.	.63	.	.	.
41	Nothing to lose if broke law.	Commitment	.	.	.42	.	.
42R	Attend a church, synagogue, or mosque.	Net Avail	.	.	.	.	.71
43R	Get together with friends/relatives 1/week.	Net Avail	.	.	.44	.	.
44	Spend time with friends at bars.	Crimin Peers	.32	.	.	.	.
45	I do what I want regardless of others.	Attachment	.32	.	.	.	.
46R	I have respect for the police.	Belief	.	.	.	.	.
47R	I hate feeling bored.	Self Control	.	.	.	.	.
48R	Try to get as much education as possible.	Commitment	.	.	.	.41	.
49R	Spend time with my family.	Involvement	.	.	.38	.	.40
50	Tend not to vote during elections.	Commitment	.	.35	.	.	.
51	Most people lie to look better.	Belief	.	.32	.	.	.
52	Hard for me to care about others.	Belief	.36	.	.31	.	.
53R	Family would help me out if I had a problem.	Net Avail	.	.	.63	.	.
54R	Share thoughts with family.	Net Avail	.	.	.61	.	.
55R	Upset when people think I did something wrong.	Attachment	.	.	.39	.	.

Table 3. Factor Loadings and Reliability of SIS Subscales

Item		26 Item Scale Factor Loading
	Factor 1 - Belief (Alpha = .77)	
5	I always appreciate hearing about a good con game.	.46
14	To get ahead, I have done some things which are not right.	.57
15	It's OK to lie to keep yourself out of trouble.	.51
20	Foolish people deserve to be taken advantage of.	.56
22	It's all right to break the law as long as you don't get caught.	.57
27	I enjoy harming or destroying objects.	.46
	Factor 2 - Criminal Peers (Alpha = .81)	
29	I have gotten in trouble because I acted without thinking.	.48
30	I hang out with friends who don't mind breaking a few rules.	.54
36	I have friends that have committed crimes.	.71
39	I spend time with friends who have been in trouble with the law.	.72
40	I have friends who get into physical fights.	.63
	Factor 3 - Network Availability (Alpha = .70)	
6	I share my thoughts with a friend.*	.52
32	I have friends who would help me out if I had a problem.*	.48
41	I have nothing to lose if I got caught breaking the law.	.42
43	I get together with friends or relatives once a week or more.*	.44
53	I have family members who would help me out if I had a problem.*	.63
54	I share my thoughts with a family member.*	.60
	Factor 4 - Commitment (Alpha = .61)	
11	I give up easily on difficult projects.	.52
35	I have goals in life that I try to reach.*	.60
37	When I work, I care what my coworkers and boss think about my work.*	.45
48	I try to get as much education as possible.*	.41
	Factor 5 - Involvement (Alpha = .69)	
12	I spend a lot of time doing volunteer work.*	.52
17	I give time or money to charitable organizations or my community.*	.61
28	I rarely have anything to do with church activities.	.64
42	I attend a church, synagogue, or mosque once a month or more.*	.71
49	I spend a lot of time with my family.*	.40

* Indicates item that was reversed when computing scores

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Table 4. Social Integration Short Scale Items

Item	Subscale
Ten Item SIS (Alpha = .65)	
It's all right to break the law as long as you don't get hurt.	Belief
To get ahead, I have done some things which are not right.	Belief
I spend time with friends who have been in trouble with the law.	Delin. Peer
I have friends that have committed crimes.	Delin. Peer
I have family members who would help me out if I had a problem.*	Net. Avail.
I share my thoughts with a family member.*	Net. Avail.
I have goals in life that I try to reach.*	Commit.
I give up easily on difficult projects.	Commit.
I attend a church, synagogue, or mosque once a month or more.*	Involve.
I rarely have anything to do with church activities.	Involve.
Five Item SIS (Alpha = .38)	
It's all right to break the law as long as you don't get hurt.	Belief
I spend time with friends who have been in trouble with the law.	Delin. Peer
I have family members who would help me out if I had a problem.*	Net. Avail.
I have goals in life that I try to reach.*	Commit.
I attend a church, synagogue, or mosque once a month or more.*	Involve.

* Indicates item that was reversed when computing scores

Table 5. Intercorrelations of Subscales

	SIS26	SIS10	SIS5	BELIEF	C PEERS	NETWRK	COMMIT	INVO
SIS26	1.00							
SIS10	.90**	1.00						
SIS5	.84**	.93**	1.00					
BELIEF	.78**	.65**	.60**	1.00				
CRIMIN PEER	.69**	.61**	.58**	.53**	1.00			
NETWORK AVAIL	.58**	.45**	.42**	.31**	.12	1.00		
COMMITMENT	.50**	.41**	.42**	.33**	.12	.36**	1.00	
INVOVLEMENT	.57**	.65**	.60**	.21**	.18**	.19**	.12	1.0
MEAN	76.74	28.37	14.79	18.55	11.62	21.21	13.47	11.8
STD DEV.	8.40	3.80	2.05	2.88	3.19	2.41	1.69	2.9
MINIMUM	45.00	15.00	6.00	7.00	5.00	11.00	7.00	5.0
MAXIMUM	100.00	40.00	20.00	24.00	20.00	24.00	16.00	20.0
N OF CASES	337	348	351	346	354	353	358	35

* p< .01, ** p< .001, 2-tailed tests

Table 6. Correlations of Social Integration Scale with Construct Validity Variables

Variable	SIS			Subscales				
	SIS26	SIS10	SIS5	Belief	D Peer	Netwrk	Commit	Involv
A. All Respondents (N = 279)								
Physical Assault	-.29**	-.23**	-.23**	-.29**	-.23**	-.16*	-.06	-.12
Psych. Aggression	-.20**	-.21**	-.18*	-.21**	-.26**	-.12	-.04	.00
Neglect Scale	-.40**	-.40**	-.38**	-.22**	-.08	-.48**	-.30**	-.28**
Parents Married	.11	.07	.06	.15*	.11	-.02	.05	-.01
Respondent Race	-.06	-.05	-.06	-.14*	-.07	.04	.04	-.08
Mother Education	-.02	-.00	.01	-.05	-.05	.04	.06	-.00
Father Education	.03	.04	.05	-.07	.04	.05	.04	.07
Family Income	-.06	-.02	-.03	-.14*	-.07	.07	-.05	.03
B. Male Respondents (N = 101)								
Physical Assault	-.38**	-.35**	-.34**	-.37**	-.24*	-.23*	-.17	-.19
Psych. Aggression	-.36**	-.32**	-.29*	-.41**	-.26*	-.24*	-.19	-.00
Neglect Scale	-.52**	-.44**	-.40**	-.42**	-.13	-.58**	-.41**	-.17
Parents Married	.14	.12	.16	.14	.10	.00	.15	.01
Respondent Race	-.03	-.00	.01	-.13	-.06	.10	.09	-.05
Mother Education	-.04	-.07	-.05	-.05	-.04	-.03	.00	-.01
Father Education	-.10	-.13	-.06	-.24*	-.03	-.07	-.02	.10
Family Income	-.09	-.05	-.08	-.21	-.16	.03	-.10	.14
C. Female Respondents (N = 190)								
Physical Assault	-.19*	-.13	-.14	-.20*	-.19*	-.07	.01	-.07
Psych. Aggression	-.13	-.15	-.12	-.08	-.25**	-.04	.05	.00
Neglect Scale	-.30**	-.36**	-.33**	-.01	-.02	-.39**	-.20*	-.32**
Parents Married	.09	.04	.00	.18*	.11	-.05	-.01	-.03
Respondent Race	-.00	-.04	-.09	-.06	-.03	.08	.02	-.09
Mother Education	.00	.04	.05	-.04	-.04	.11	.10	-.00
Father Education	.12	.14	.13	.02	.08	.13	.09	.05
Family Income	.00	.03	.04	-.04	-.00	.17*	.00	-.00

*$p < .01$ ** $p < .001$ (one-tailed tests, pairwise).